AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0001] with the following amended paragraph:

Reference is made to commonly-assigned co-pending U.S. Patent Application Serial No. 10/689,131~~(Attorney Docket No. D/A3421)~~, now U.S. Publication No. 20050084273, filed herewith, entitled "Heating System For A Developer Housing," by Armando J. Rivera et al., the disclosure of which is incorporated herein.

Please replace paragraph [0016] with the following amended paragraph:

Referring now to the drawings, there is shown a single pass multi-color printing machine in Figure 1. This printing machine employs the following components: a photoconductive belt 10, supported by a plurality of rollers or bars, 12. Photoconductive belt 10 is arranged in a vertical orientation. Photoconductive belt 10 advances in the direction of arrow 14 to move successive portions of the external surface of photoconductive belt 10 sequentially beneath the various processing stations disposed about the path of movement thereof. The photoconductive belt 12 has a major axis 120 and a minor axis 118. The major and minor axes ~~118, 120~~ 118 and 120 are perpendicular to one another. Photoconductive belt 10 is elliptically shaped. The major axis 120 is substantially parallel to the gravitational vector and arranged in a substantially vertical orientation. The minor axis 118 is substantially perpendicular to the gravitational vector and arranged in a substantially horizontal direction. The printing machine architecture includes

five image recording stations indicated generally by the reference numerals 16, 18, 20, 22, and 24, respectively. Initially, photoconductive belt 10 passes through image recording station 16. Image recording station 16 includes a charging device and an exposure device. The charging device includes a corona generator 26 that charges the exterior surface of photoconductive belt 10 to a relatively high, substantially uniform potential. After the exterior surface of photoconductive belt 10 is charged, the charged portion thereof advances to the exposure device. The exposure device includes a raster output scanner (ROS) 28, which illuminates the charged portion of the exterior surface of photoconductive belt 10 to record a first electrostatic latent image thereon. Alternatively, a light emitting diode (LED) may be used.

Please replace paragraphs [0032]-[0039] with the following amended paragraphs:

Referring now to Figure 2, there are shown the details of a development apparatus 132. The apparatus comprises a reservoir or developing housing 164 containing developer material. The developer material is of the two component type, that is it comprises carrier granules and toner particles. The reservoir 164 includes augers 168, which are rotatably-mounted in the reservoir chamber. The augers 168 serve to transport and to agitate the developer material within the reservoir 164 and encourage the toner particles to adhere triboelectrically to the carrier granules. A magnetic brush roll 170 transports developer material from the reservoir 164 to loading nips of two donor rolls or members ~~176, 178~~176 and 178. Magnetic brush rolls are well known, so the construction of magnetic brush roll 170 need not be described in great detail. Briefly the magnetic brush roll 170 comprises a rotatable tubular housing within which is located a

stationary magnetic cylinder having a plurality of magnetic poles impressed around its surface. The carrier granules of the developer material are permeable, as the tubular housing of the magnetic brush roll 170 rotates, the granules (with toner particles adhering triboelectrically thereto) are attracted to the magnetic brush roll 170 and are conveyed to the donor roll loading nips. A trim bar 180 removes excess developer material from the magnetic brush roll 170 and ensures an even depth of coverage with developer material before arrival at the first donor roll loading nip~~ 172~~. At each of the donor roll loading nips, toner particles are transferred from the magnetic brush roll 170 to the respective donor rolls ~~176, 178~~<u>176 and 178</u>.

Each donor rolls ~~176, 178~~<u>176 and 178</u> transports the toner to a respective development zone through which the photoconductive belt 10 passes. Transfer of toner from the magnetic brush roll 170 to the donor rolls ~~176, 178~~<u>176 and 178</u> can be encouraged by, for example, the application of a suitable D.C. electrical bias to the magnetic brush roll 170 and/or donor rolls ~~176, 178~~<u>176 and 178</u>. The D.C. bias (for example, approximately 100 v applied to the magnetic brush roll 170) establishes an electrostatic field between the magnetic brush roll 170 and donor rolls ~~176, 178~~<u>176 and 178</u>, which causes toner particles to be attracted to the donor rolls ~~176, 178~~<u>176 and 178</u> from the carrier granules on the magnetic brush roll 170.

The carrier granules and any toner particles that remain on the magnetic brush roll 170 are returned to the reservoir 164 as the magnetic brush roll 170 continues to rotate. The relative amounts of toner transferred from the magnetic brush roll 170 to the donor rolls ~~176, 178~~<u>176 and 178</u> can be adjusted, for example by: applying different bias voltages to the donor rolls ~~176, 178~~<u>176 and 178</u>; adjusting the magnetic brush roll to donor roll spacing;

adjusting the strength and shape of the magnetic field at the loading nips and/or adjusting the speeds of the donor rolls ~~176, 178~~176 and 178.

At each of the development zones, toner is transferred from the respective donor rolls ~~176, 178~~176 and 178 to the latent image on the photoconductive belt 10 to form a toner powder image on the latter. Various methods of achieving an adequate transfer of toner from a donor roll to a photoconductive surface are known and any of those may be employed at the development zones.

In Figure 2, each of the development zones is shown as having the form i.e. electrode wires ~~186, 188~~186 and 188 are disposed in the space between each donor rolls ~~176, 178~~176 and 178 and photoconductive belt 10. Figure 2 shows, for each donor rolls ~~176, 178~~176 and 178 a respective pair of electrode wires ~~186, 188~~186 and 188 extending in a direction substantially parallel to the longitudinal axis of the donor rolls ~~176, 178~~176 and 178. The electrode wires ~~186, 188~~186 and 188 are made from thin (i.e. 50 to 100 .mu. diameter) tungsten wires which are closely spaced from the respective donor rolls ~~176, 178~~176 and 178. The distance between each pair of electrode wires ~~186, 188~~186 and 188 and the respective donor rolls ~~176, 178~~176 and 178 is within the range from about 10 .mu. to about 40 .mu. (typically approximately 25 .mu.) or the thickness of the toner layer on the donor rolls ~~176, 178~~176 and 178. The electrode wires ~~186, 188~~186 and 188 are self-spaced from the donor rolls ~~176, 178~~176 and 178 by the thickness of the toner on the donor rolls ~~176, 178~~176 and 178. To this end the extremities of the electrode wires ~~186, 188~~186 and 188 are supported by the tops of end bearing blocks that also support the donor rolls ~~176, 178~~176 and 178 for rotation. The electrode wires ~~186, 188~~186 and 188 extremities are attached so that they are slightly below a tangent to the surface, including the toner

layer, of the donor rolls ~~176, 178~~176 and 178. An alternating electrical bias is applied to the electrode wires ~~186, 188~~186 and 188 by an AC voltage source.

The applied AC establishes an alternating electrostatic field between each pair of electrode wires ~~186, 188~~186 and 188 and the respective donor rolls ~~176, 178~~176 and 178, which is effective in detaching toner from the surface of the donor rolls ~~176, 178~~176 and 178 and forming a toner cloud about the electrode wires ~~186, 188~~186 and 188, the height of the cloud being such as not to be substantially in contact with the photoconductive belt 10. The magnitude of the AC voltage is relatively low, for example in the order of 200 to 500 volts peak a frequency ranging from about 3 kHz to about 10 kHz. A DC bias supply (not shown) applied to each donor rolls ~~176, 178~~176 and 178 establishes electrostatic fields between the photoconductive belt 10 and donor rolls ~~176, 178~~176 and 178 for attracting the detached toner particles from the clouds surrounding the electrode wires ~~186, 188~~186 and 188 to the latent image recorded on the photoconductive surface of the photoconductive belt 10. At a spacing ranging from about 10 .mu. to about 40 .mu. between the electrode wires ~~186, 188~~186 and 188 and donor rolls ~~176, 178~~176 and 178, an applied voltage of 200 to 500 volts produces a relatively large electrostatic field without risk of air breakdown.

After development, toner may be stripped from the donor rolls ~~176, 178~~176 and 178 by respective cleaning blades (not shown) so that magnetic brush roll 170 meters fresh toner to clean donor rolls ~~176, 178~~176 and 178. As successive electrostatic latent images are developed, the toner particles within the developer material are depleted. A toner dispenser (not shown) stores a supply of toner particles. The toner dispenser is in communication with reservoir 164 and, as the concentration of toner particles in the developer material is decreased, fresh toner particles are furnished to

the developer material in the reservoir 164. The augers 168 in the reservoir chamber mix the fresh toner particles with the remaining developer material so that the resultant developer material therein is substantially uniform with the concentration of toner particles being optimized. In this way, a substantially constant amount of toner particles is in the reservoir 164 with the toner particles having a constant charge.

In the arrangement shown in Figure 2, the donor rolls ~~176, 178~~176 and 178 and the magnetic brush roll 170 can be rotated either "with" or "against" the direction of motion of the photoconductive belt 10. The two-component developer used in the apparatus of Figure 2 may be of any suitable type. However, the use of an electrically conductive developer is preferred because it eliminates the possibility of charge build-up within the developer material on the magnetic brush roll 170 which, in turn, could adversely affect development at the second donor roll 178. By way of example, the carrier granules of the developer material may include a ferromagnetic core having a thin layer of magnetite overcoated with a non-continuous layer of resinous material. The toner particles may be made from a resinous material, such as a vinyl polymer, mixed with a coloring material, such as chromogen black. The developer material may comprise from about 95% to about 99% by weight of carrier and from 5% to about 1% by weight of toner.

Please replace paragraph [0041] with the following amended paragraph:

The present invention includes a climate system ~~410~~, associated with the reservoir 164, for maintaining the supply of developer material at a predefined temperature, the climate system includes a heating element 405

and a cooling element 403 which supplies air between 50 to 60 F from the environmental control system 510 to housing cooling channel 410. The air cools contacts thermal fins 411 which are integrated into housing to improve cooling of the housing when required. Preferably heating element 405 is positioned between augers 168 and 169. This allows even heating developer material in the housing while the developer mixed and transported within the housing.

Please replace paragraph [0046] with the following amended paragraph:

Now referring to Figure 3, another embodiment consists of a ceramic heating element 516, a temperature controller 520 which includes, two mechanical relays (not shown), two solid state relays (not shown), and an enclosure 530. Air enters from environment control system 510 via a ~~hose 410~~ cooling channel 410 passes through the ceramic heater 516, and exits the enclosure through a flexible hose connected to the developer housing.